

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below.

1-2. (Cancelled)

3. (Currently Amended) A process for preparing an aqueous coating material with precisely defined shade and optical effect, comprising mixing modules differing in material composition and function and stored separately from one another shortly before application of the coating material, wherein the modules comprise:

(I) at least one module comprising less than 5% by weight water that provides at least one of color and effect, comprising:

(A1) at least one base color comprising less than 5% by weight water that imparts at least one of color and effect comprising:

(a11) at least one binder, wherein the at least one binder is optionally water-soluble or water-dispersible;

(a12) at least one pigment that imparts at least one of color and effect; and

(a13) at least one organic solvent, wherein the at least one organic solvent is optionally water-miscible;

and optionally, at least one of:

(a14) at least one crosslinking agent;

(a15) at least one auxiliary; and

(a16) at least one additive;

(II) at least one aqueous color module, comprising:

(A2) at least one aqueous color-imparting base color, comprising:

(a21) 10 to 80% by weight of at least one water-soluble or water-dispersible binder;

(a22) 1 to 70% by weight of at least one inorganic color pigment or 1 to 30% by weight of at least one organic color pigment, optionally a combination of at least one organic color pigment and at least one inorganic color pigment ; and

(a23) 10 to 89% by weight water when 1 to 30% by weight of at least one organic color pigment is present, except and 20 to 89% by weight water when 1 to 70% by weight of at least one inorganic color pigment is present;

and optionally, at least one of:

(a24) at least one organic solvent, wherein the at least one organic solvent is optionally water-miscible;

(a25) at least one crosslinking agent;

(a26) at least one auxiliary; and

(a27) at least one additive;

and

(III) at least one pigment-free mixing varnish module, comprising:

(B) at least one aqueous, pigment-free mixing varnish, comprising:

(b1) at least one water-soluble or water-dispersible binder; and

(b2) water;

and optionally, at least one of:

(b3) at least one crosslinking agent;

(b4) at least one auxiliary; and

(b5) at least one additive;

and optionally:

(IV) at least one pigment-free rheology module, comprising:

(C) an aqueous medium, comprising:

(c1) at least one rheology control additive;

optionally, with the proviso that at least one of the at least one additives (a16), (a27), and (b5) further comprises the at least one rheology control additive (c1).

4-17. (Cancelled)

18. (Previously Presented) The process of claim 3, wherein the at least one base color (A1) imparts one of i) effect or ii) color and effect.

19. (Currently Amended) The process of claim 3, wherein the modules comprise one of:

(i) the at least one module (I) comprising less than 5% by weight water that provides color, the at least one aqueous color module (II), and the at least one pigment-free mixing varnish module (III),

(ii) the at least one module (I) comprising less than 5% by weight water that provides color and effect, the at least one aqueous color module (II), and the at least one pigment-free mixing varnish module (III), and

(iii) the at least one module (I) comprising less than 5% by weight water that provides effect, ~~the at least one color module (I) containing less than 5% by weight water, the at least one~~ aqueous color module (II), and the at least one pigment-free mixing varnish module (III).

20. (Cancelled)

21. (Previously Presented) The process of claim 3, wherein the at least one additive (b5) comprises the at least one rheology control additive (c1).

22. (Canceled) The process of claim 3, wherein the modules comprise the at least one pigment-free rheology module (IV).

23-24. (Canceled)

25. (Previously Presented) The process of claim 3, wherein the at least one binder (a11), the at least one water-soluble or water-dispersible binder (a21), and the at least one water-soluble or water-dispersible binder (b1) are of a same polymer class.

26. (Previously Presented) The process of claim 25, wherein the at least one binder (a11), the at least one water-soluble or water-dispersible binder (a21), and the at least one water-soluble or water-dispersible binder (b1) are polyurethane resins.

27. (Canceled)

28. (Previously Presented) The process of claim 3, wherein the at least one water-soluble or water-dispersible binder (a21) and the at least one water-soluble or water-dispersible binder (b1), and optionally the at least one binder (a11), comprise functional groups that can be converted into anions by at least one of neutralizing agents and anionic groups.

29-41. (Canceled)

42. (Currently amended) A process for preparing an aqueous coating material with precisely defined shade and optical effect, comprising mixing modules differing in material composition and function and stored separately from one another shortly before application of the coating material, wherein the modules comprise:

(I) at least one module comprising less than 5% by weight water that provides at least one of color and effect takes on all of the function of effect and part of the function of coloring or serves solely for imparting effect, comprising:

(A1) at least one base color comprising less than 5% by weight water that imparts ~~at least one of (i) color and effect or (ii) effect~~, comprising:

(a11) 10 to 80% by weight of at least one binder, wherein the at least one binder is optionally water-soluble or water-dispersible;

(a12) 0.5 to 70% by weight of at least one pigment that imparts ~~at least one of (i) color and effect or (ii) effect~~; and

(a13) 10 to 89.5% by weight of at least one organic solvent, wherein the at least one organic solvent is optionally water-miscible;

and optionally, at least one of:

(a14) at least one crosslinking agent;

(a15) at least one auxiliary; and

(a16) at least one additive;

(II) at least one aqueous color module, comprising:

(A2) at least one aqueous color-imparting base color, comprising:

(a21) 10 to 80% by weight of at least one water-soluble or water-dispersible binder;

(a22) 1 to 70% by weight of at least one inorganic color pigment or 1 to 30% by weight of at least one organic color pigment, optionally a combination of at least one organic color pigment and at least one inorganic color pigment; and

(a23) 10 to 89% by weight water ~~when 1 to 30% by weight of at least one organic color pigment is present, except and~~ 20 to 89% by weight water when 1 to 70% by weight of at least one inorganic color pigment is present;

and optionally, at least one of:

(a24) at least one organic solvent, wherein the at least one organic solvent is optionally water-miscible;

(a25) at least one crosslinking agent;

(a26) at least one auxiliary; and

(a27) at least one additive;

and

(III) at least one pigment-free mixing varnish module, comprising:

(B) at least one aqueous, pigment-free mixing varnish, comprising:

(b1) at least one water-soluble or water-dispersible binder; and

(b2) water;

and optionally, at least one of:

(b3) at least one crosslinking agent;

(b4) at least one auxiliary; and

(b5) at least one additive;

and:

(IV) at least one pigment-free rheology module, comprising:

(C) an aqueous medium, comprising:

(c1) 0.5 to 50% by weight of at least one rheology control additive and 70 to 99.5% by weight of aqueous medium;

optionally, with the proviso that at least one of the at least one additives (a16), (a27), and (b5) further comprise the at least one rheology control additive (c1).

43. (Previously Presented) The process of claim 42 wherein the aqueous coating material that is prepared has a pigment content of at least about 8.0%.

44. (Previously Presented) The process of claim 42 wherein the at least one pigment-free rheology module comprises a phyllosilicate.

45. (Previously Presented) The process of claim 42 wherein the at least one base color (A1) comprises only effect pigments or only color pigments.

46. (Previously Presented) The process of claim 42 wherein the at least one base color (A1) comprises an effect pigment selected from the group consisting of metal flake pigment, pearlescent pigment, interference pigment, and mixtures thereof.

47. (Previously Presented) The process of claim 42 wherein the module (I) takes on all of the function of effect and part of the function of coloring.

48. (Previously Presented) The process of claim 42 wherein the module (I) serves solely for imparting effect.

49. (Previously Presented) The process of claim 42 wherein the binder (a11) in module (A1) is an acrylate addition copolymer, polyester, and/or polyurethane, each containing carboxylic and/or carboxylate groups and optionally hydroxyl groups, having a number-average molecular weight of from 850 to 20,000.

50. (Previously Presented) The process of claim 49, wherein the at least one binder (a11), the at least one water-soluble or water-dispersible binder (a21), and the at least one water-soluble or water-dispersible binder (b1) are polyurethane resins, and wherein the polyurethane resin (a11) has an acid number of 20 to 150 mg KOH/g.

51. (Previously Presented) The process of claim 42, wherein the at least one additive (b5) in the mixing varnish further comprises at least one rheology control additive.

52. (Previously Presented) The process of claim 50 wherein the process further comprises applying the coating material prepared using the modular system to a substrate to

obtain a basecoat film and, following initial drying of the basecoat film, applying a clearcoat wet-on-wet to produce a multicoat color, or color and effect, coating system.

53. (Currently Amended) A process for preparing an aqueous basecoat coating material with precisely defined shade and optical effect, for use with a clearcoat applied wet-on-wet to produce a multicoat color, or color and effect, coating system, wherein the process comprises a modular system having mixing modules differing in material composition and function and stored separately from one another shortly before application of the coating material, wherein the module system consists of the following four modules:

(I) at least one module comprising less than 5% by weight water that provides at least ~~one of color and effect~~takes on all of the function of effect and part of the function of coloring, comprising:

(A1) at least one base color comprising less than 5% by weight water that imparts ~~at least one of color~~ and effect comprising:

(a11) 10 to 80% by weight of at least one binder, wherein the at least one binder is optionally water-soluble or water-dispersible;

(a12) 0.5 to 70% by weight of ~~at least one~~-effect pigment, ~~color~~ pigment, ~~or effect~~ and color pigment; and

(a13) 10 to 89.5% by weight of at least one organic solvent, wherein the at least one organic solvent is optionally water-miscible;

and optionally, at least one of:

(a14) at least one crosslinking agent;

(a15) at least one auxiliary; and

(a16) at least one additive;

(II) at least one aqueous color module, comprising:

(A2) at least one aqueous color-imparting base color, comprising:

(a21) 10 to 80% by weight of at least one water-soluble or water-dispersible binder;

(a22) 1 to 70% by weight of at least one inorganic color pigment or 1 to 30% by weight of at least one organic color pigment, optionally a combination of at least one organic color pigment and at least one inorganic color pigment; and

(a23) 10 to 89% by weight water when 1 to 30% by weight of at least one organic color pigment is present, except and 20 to 89% by weight water when 1 to 30% by weight of at least one organic color pigment is present;

and optionally, at least one of:

(a24) at least one organic solvent, wherein the at least one organic solvent is optionally water-miscible;

(a25) at least one crosslinking agent;

(a26) at least one auxiliary; and

(a27) at least one additive;

and

(III) at least one pigment-free mixing varnish module, comprising:

(B) at least one aqueous, pigment-free mixing varnish, comprising:

(b1) from 10 to 80% by weight of at least one water-soluble or water-dispersible binder; and

(b2) from 20 to 90% by weight of water;

and optionally, at least one of:

(b3) at least one crosslinking agent;

(b4) at least one auxiliary; and

(b5) at least one additive;

and:

(IV) at least one pigment-free rheology module, comprising:

(C) an aqueous medium, comprising:

(c1) 1.5 to 25% by weight of at least one rheology control additive and 75 to 98.5% by weight of aqueous medium;

optionally, with the proviso that at least one of the at least one additives (a16), (a27), and (b5) further comprise the at least one rheology control additive (c1);

wherein the at least one binder (a11), the at least one water-soluble or water-dispersible binder (a2l), and the at least one water-soluble or water-dispersible binder (b1) are polyurethane resins, and wherein the binder (a11) in module (A1) is a polyurethane containing carboxylic and/or carboxylate groups and optionally hydroxyl groups having a number-average molecular weight of from 850 to 20,000 and an acid number of 20 to 150 mg KOH/g.

54. (Previously Presented) The process of claim 3, wherein the at least one binder (a11), the at least one water-soluble or water-dispersible binder (a2l), and the at least one water-soluble or water-dispersible binder (b1) are the same.

55. (Previously Presented) The process of claim 3, wherein the at least one binder (a11), the at least one water-soluble or water-dispersible binder (a2l), and the at least one water-soluble or water-dispersible binder (b1) each comprise a mixture of at least two binders, and the mixing ratio of the binders in (a11), (a2l), and (b1) is the same in each.

56. (Previously Presented) The process of claim 42, wherein the at least one rheology control additive (c1) present in module (IV) is crosslinked polymeric microparticles, an inorganic

phylosilicate, a silica, a polyvinyl alcohol, a poly(meth)acrylamide, a poly(meth)acrylic acid, a polyvinylpyrrolidone, a styrene-maleic anhydride copolymer or derivative thereof, a ethylene-maleic anhydride copolymer or derivative thereof, a hydrophobically modified ethoxylated urethane, a hydrophobically modified polyacrylate, or a combination comprising one or more of the foregoing rheology control additives.

57. (Previously presented) The process of claim 3, wherein said pigment (a12) comprises metal flake effect pigment.

58. (Previously presented) The process of claim 57, wherein said metal flake pigment comprises aluminum flake.

59. (Previously presented) The process of claim 42, wherein said pigment (a12) comprises metal flake effect pigment.

60. (Previously presented) The process of claim 59, wherein said metal flake pigment comprises aluminum flake.

61. (Previously presented) The process of claim 3, wherein the module (II) serves solely for imparting color.

62. (Previously presented) The process of claim 48, wherein the module (II) serves solely for imparting color.